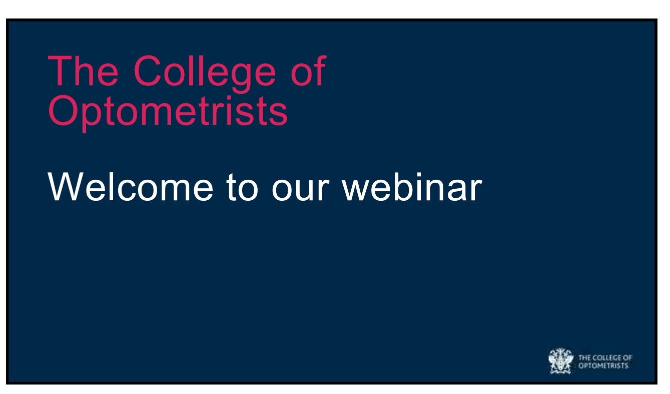
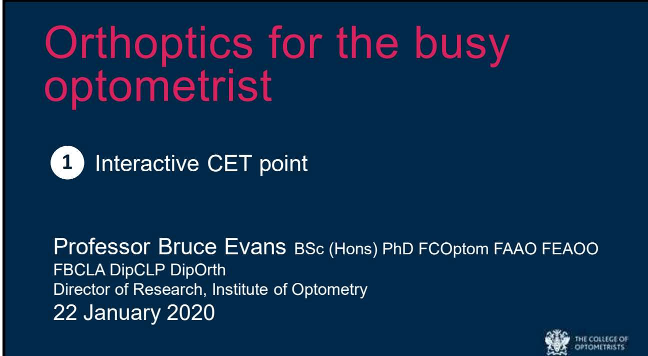
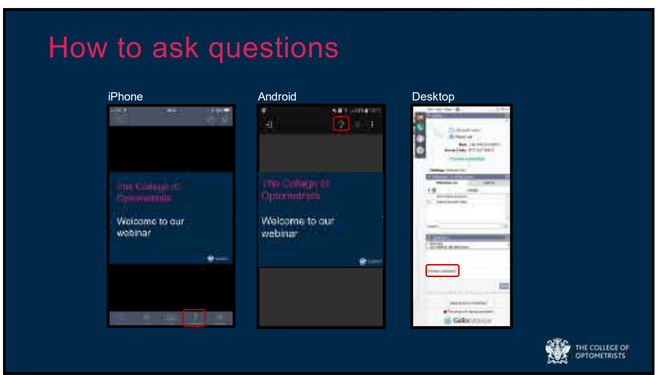


1



2



3

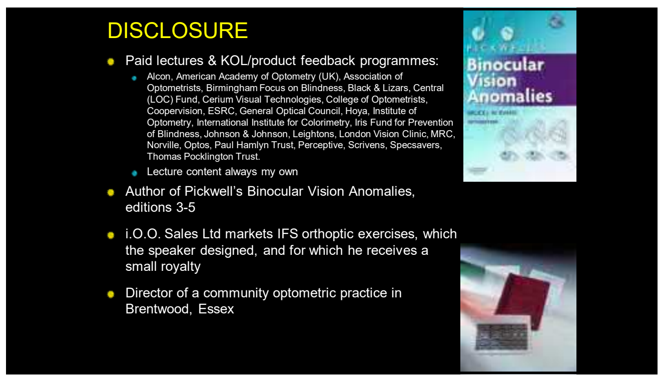
Interactive CET point

- Answer min four poll questions
- Remain in webinar for at least 50 mins
- Complete feedback form

Submit poll

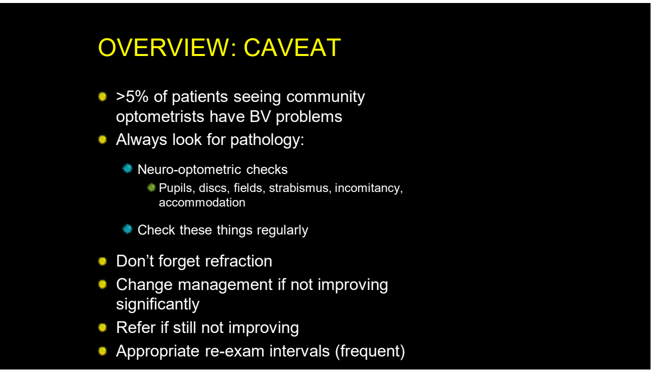
THE COLLEGE OF OPTOMETRISTS

4



5

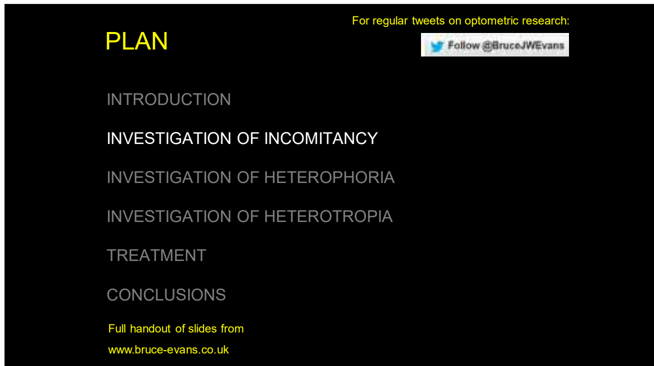
6



7

Poll question 1

8



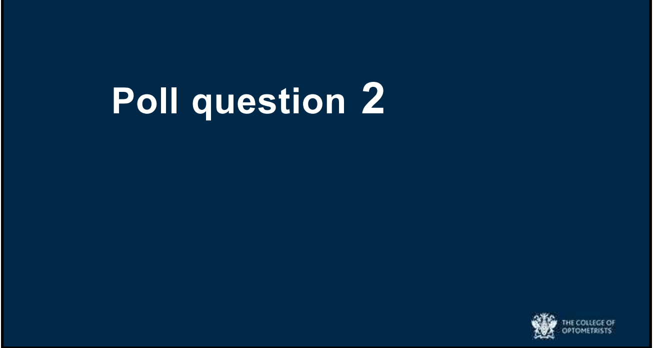
9

CAUSES OF INCOMITANCIES

VASCULAR	NEUROLOGICAL	OTHER
Diabetes	Tumours	Trauma
Hypertension	Multiple sclerosis	Thyrotoxicosis
Stroke	Myasthenia gravis	Toxic
Aneurysms	Migraine	Iatrogenic
Temporal arteritis		Idiopathic

Underlined = more likely in elderly

10

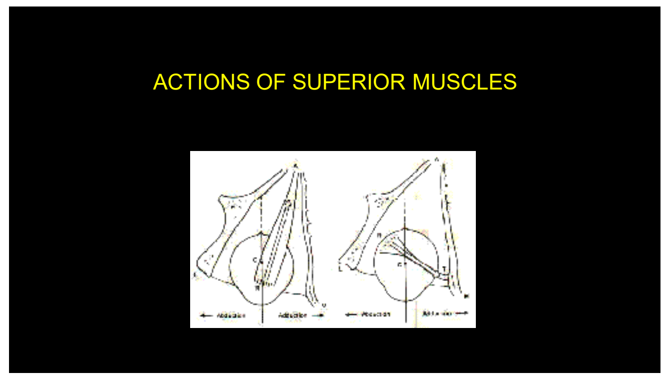


11

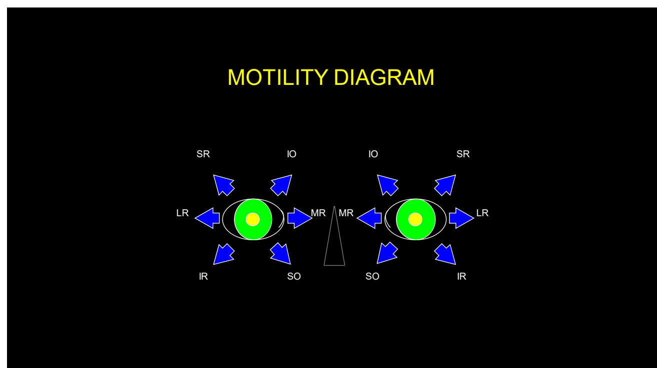
Motility test

- Use reliable pen torch
  - Check nose not occluding
- Really, three tests, so do three times:
  1) Observe corneal reflexes
  2) Cover test in peripheral gaze
  3) Ask about diplopia
- Beware of reports of diplopia
  - May break down (in view of target, distance, fus. res.)
  - May be variable
  - May be confused
- Know the muscle actions (RADSIN)

12



13

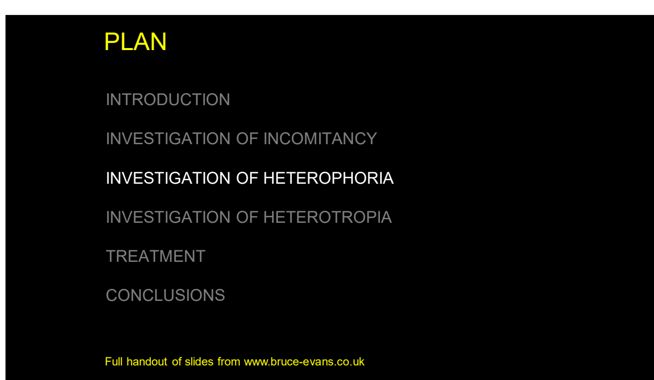


14

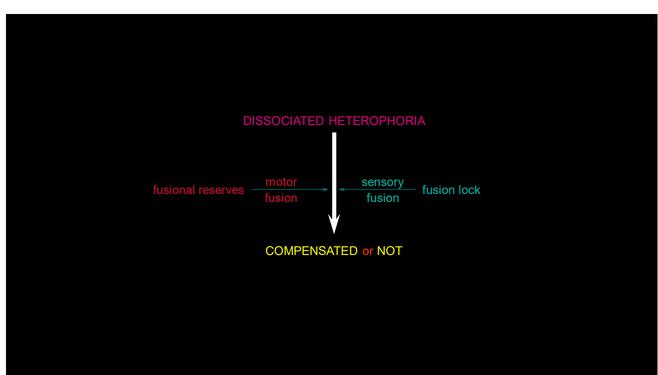
Incomitancies: the bottom line

- Some incomitancies are difficult to detect
  - If symptoms are suspicious, do cover testing in peripheral gaze
  - Testing for cyclo-deviations detects SO palsies
- Refer new or changing incomitancies
- In some long-standing cases, prescribing the prism required in the primary position may help

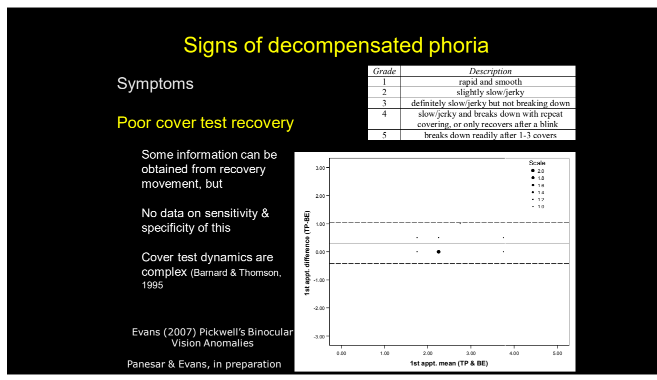
15



16



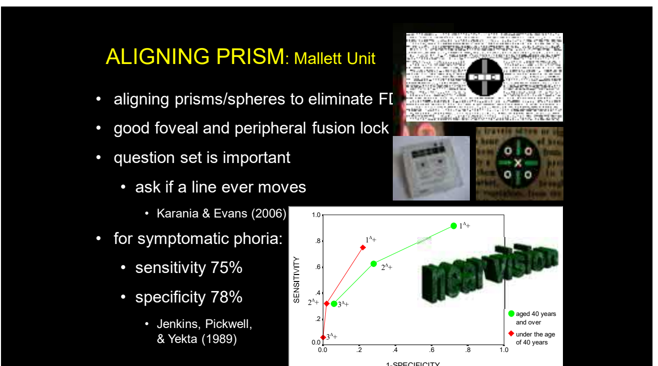
17



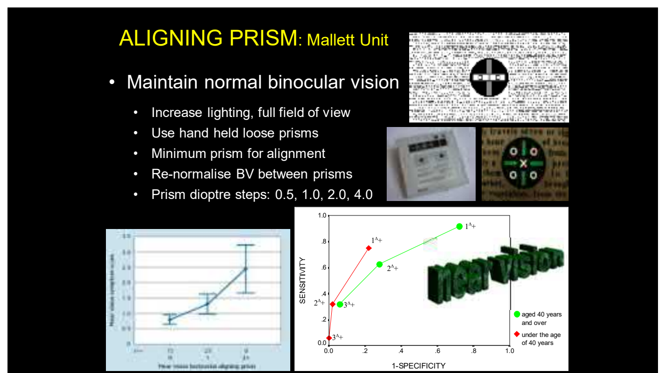
Grade	*Description*
1	rapid and smooth
2	slightly slow/jerky
3	definitely slow/jerky but not breaking down
4	slow/jerky and breaks down with repeat covering, or only recovers after a blink
5	breaks down readily after 1-3 covers

18

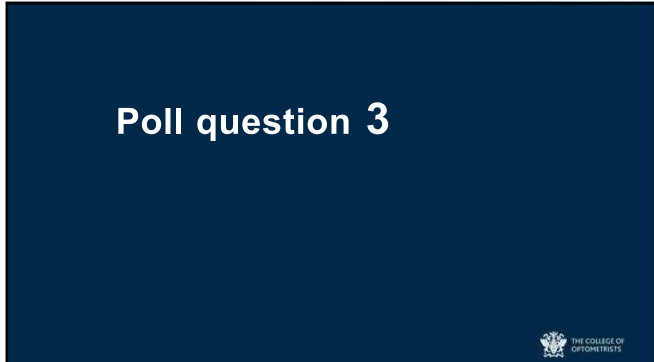
19



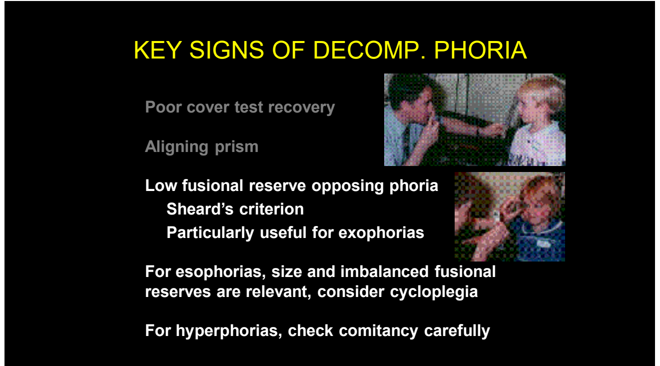
20



21

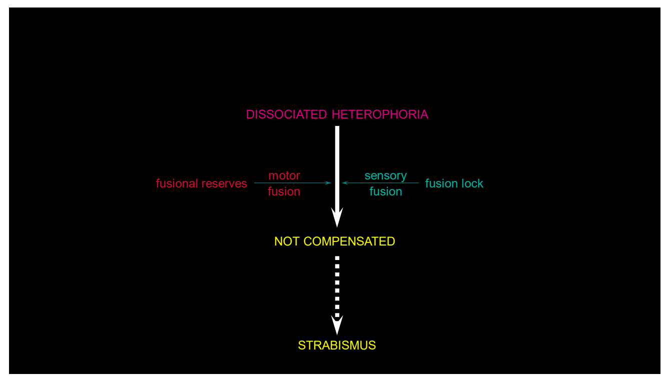


22

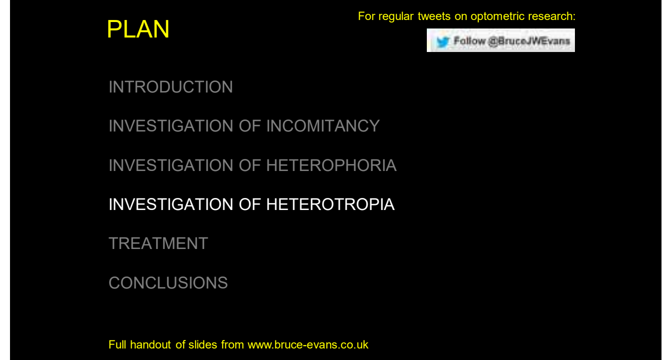


23

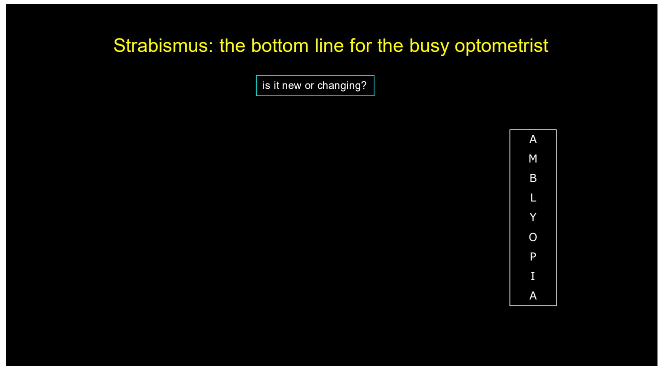
24



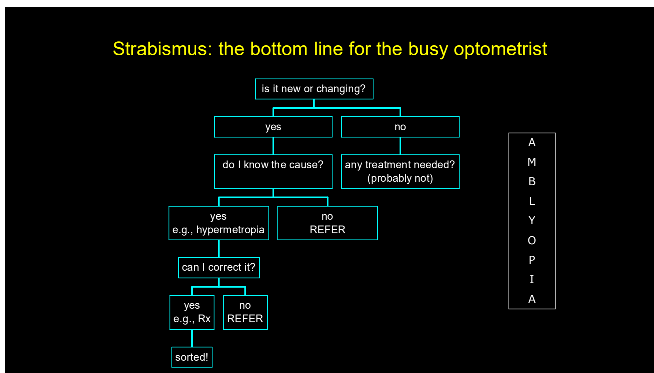
25



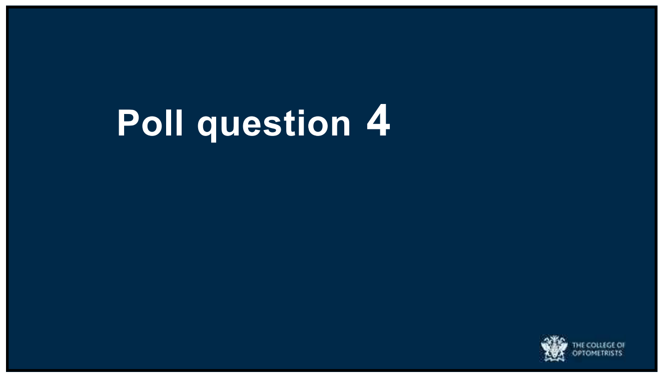
26



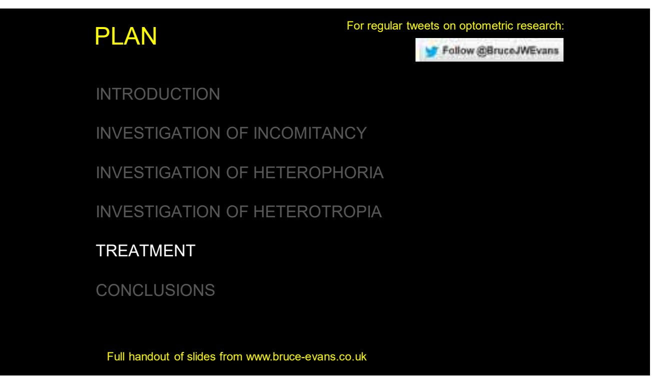
27



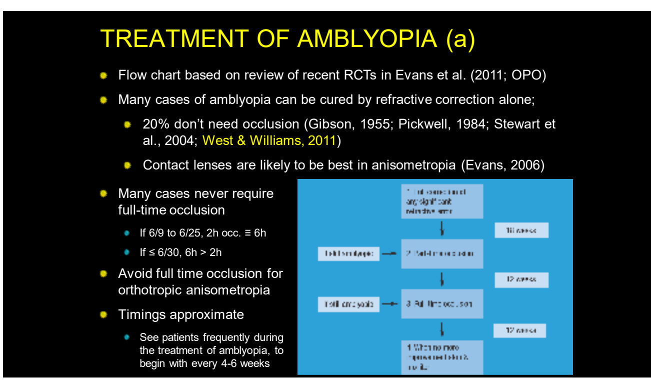
28



29



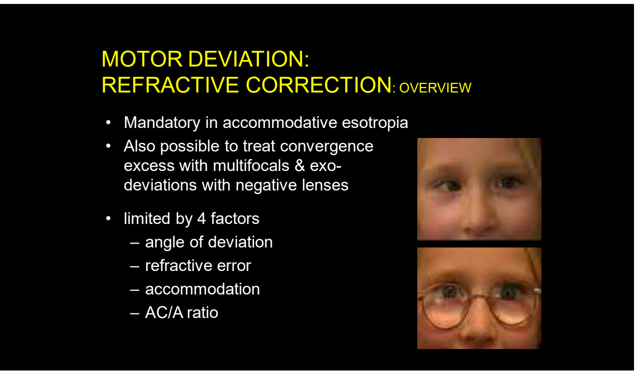
30



31

Poll question 5

32

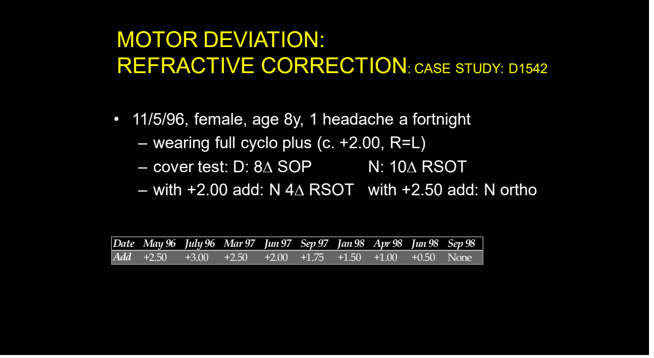


33

MOTOR DEVIATION: REFRACTIVE CORRECTION: SPECIFICS

- determine sphere that
  - eliminates strabismus (no diplopia)
  - eliminates FD on Mallett Unit
- prescribe, try to reduce approx. every 3-6/12
- negative adds (Chen et al., 2016) and bifocals/varifocals can work well

34



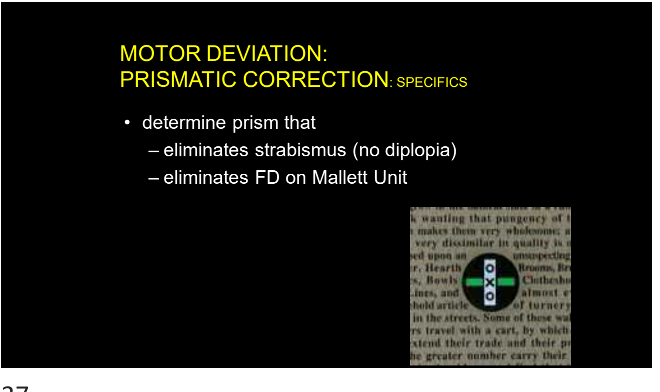
Date	May 96	July 96	Mar 97	Jun 97	Sep 97	Jan 98	Apr 98	Jun 98	Sep 98
Add	+2.50	+3.00	+2.50	+2.00	+1.75	+1.50	+1.00	+0.50	None

35

MOTOR DEVIATION: PRISMATIC CORRECTION: OVERVIEW

- preferred treatment in small/moderate vertical deviations
- may also help in small/moderate horizontal deviations if not amenable to refractive modification or exercises
- limited by angle of deviation / cosmesis of prism

36

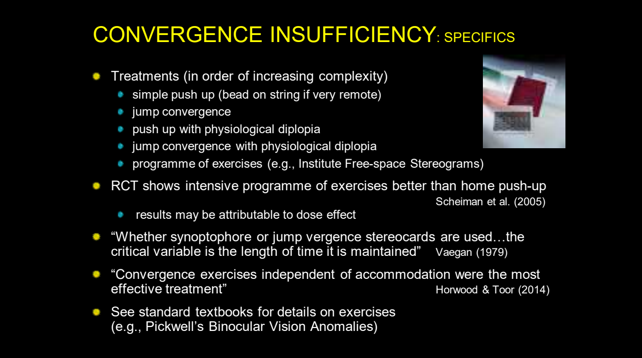


37

MOTOR DEVIATION: FUSIONAL RESERVE EXERCISES: OVERVIEW

- preferred treatment in small/moderate horizontal deviations, if px co-operative
  - Work well in those aged 11-19y, even if strabismic (Pickwell & Jenkins, 1982)
- in exo-deviations improve ability to converge
- in eso-deviations improve ability to diverge
- try to assess progress using a method different to the treatment technique
- mixed evidence from RCTs
  - Scheiman & Gwiazda (2011) - intensive exercises better than push-up
  - CITT-ART trial – intensive exercises improve NPC & fusional reserves, but not symptoms (CISS) or reading

38

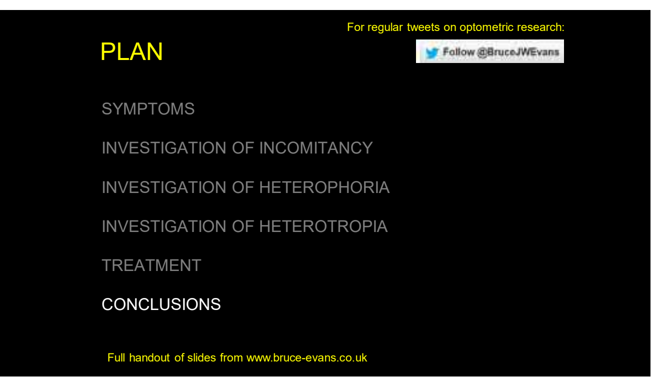


39

Poll question 6

THE COLLEGE OF OPTOMETRISTS

40



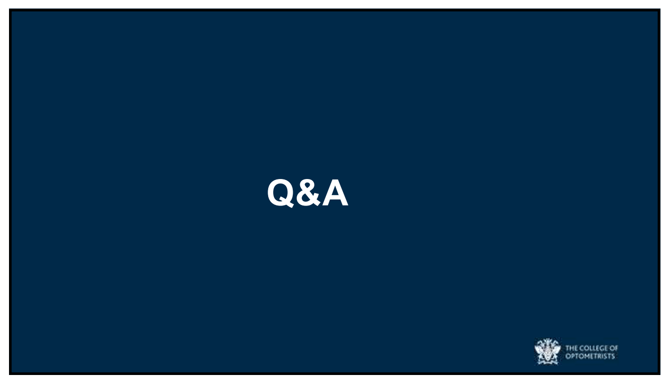
41

CONCLUSIONS

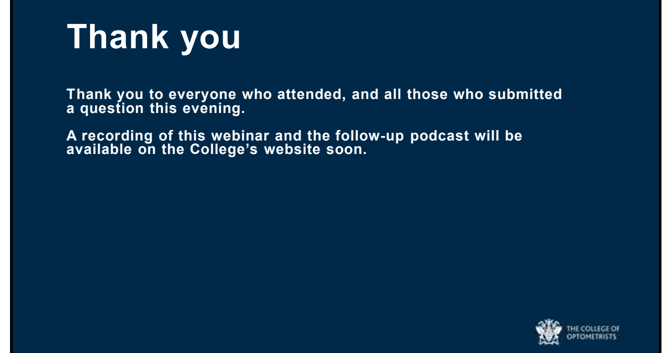
- Always be on the lookout for pathology
  - refer if no significant improvement
  - BUT pathology is very rare
- It is possible to treat amblyopia in optometric practice
  - patients will need good instructions & regular checks
- Many comitant ocular motor anomalies are treatable
  - plus for eso, minus for exo, & prisms are under-used treatments
- Vision therapy for convergence insufficiency is evidence-based, but there is a need for more research for other forms of vision therapy

YOU

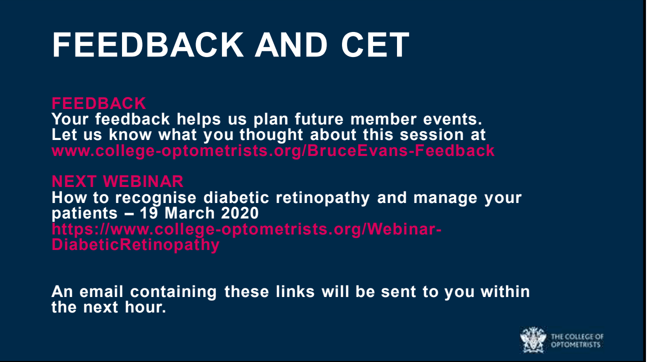
42



43



44



45